UNITED STATES MARINE CORPS Logistics Operations School Marine Corps Combat Service Support Schools Training Command PSC Box 20041

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MTMOC 2202

STUDENT OUTLINE

MARINE CORPS INTEGRATED MAINTENANCE MANAGEMENT SYSTEM (MIMMS)

LEARNING OBJECTIVES:

- a. <u>Terminal Learning Objective</u>: Given the references and requirements to identify the procedures for the management of ground equipment maintenance, identify the MIMMS procedures for equipment maintenance management, per MCO P4790.1 and MCO P4790.2. (3510.2.3)
- b. <u>Enabling Learning Objective</u>: Given the references and requirements to identify the procedures for the management of ground equipment maintenance, per MCO P4790.1 and MCO P4790.2, identify:
 - (1) The overall objective of MIMMS. (3510.2.3a)
- (2) How MIMMS assists in the management of an equipment maintenance program. (3510.2.3b)
 - (3) MIMMS procedures. (3510.2.3c)
 - (4) The responsibilities of the commanding officer. (3510.2.3d)
- (5) The responsibilities of maintenance management officer. (3510.2.3e)
- (6) The responsibilities of the field supply maintenance analysis officer (FSMAO). (3510.2.3f)
- (7) The responsibilities of the maintenance officer/commodity manager. (3510.2.3g)
- (8) The features and capabilities of the Automated information system (AIS). (3510.2.3h)
 OUTLINE:
- 1. PURPOSE AND CONTENT OF MIMMS RELATED PUBLICATIONS

a. MCO P4790.1, MIMMS Introduction Manual

(1) The MIMMS Introduction Manual establishes the policy and procedures for MIMMS and the conduct of ground equipment maintenance in the Marine Corps. This manual actually implemented MIMMS.

(2) Contents of MCO P4790.1.

- (a) This manual defines the MIMMS concept and lists the MIMMS objectives.
- (b) The manual also establishes and organizes the Maintenance Management Officer's (MMO's) responsibilities from Headquarters, Marine Corps to battalion level units.

b. MCO P4790.2, MIMMS Field Procedures Manual

(1) The purpose of the MIMMS Field Procedures Manual is to establish policies and procedures for the management of ground equipment maintenance in field units of the Regular Establishment and ground aviation units of the Selected Marine Corps Reserves.

(2) Contents of MCO P4790.2.

- (a) MCO P4790.2 defines the policies to be followed in the assignment of equipment maintenance services to higher echelons of main tenance, use of secondary reparables/repair parts, cannibalization, equipment readiness for combat, and administrative storage/deadline.
- (b) Establishes maintenance management responsibilities and relationships.
- (c) Defines the maintenance mission and organization to include equipment and maintenance allowances/requirements.
- (d) Discusses the management of equipment maintenance, logistics support, maintenance plans, supply support, facilities, personnel, and training.
- (e) Covers the organization of maintenance assets to include establishing a maintenance shop, function, and maintenance work flow.
- (f) It also covers equipment maintenance operations including recovery, evacuation, preventive/corrective maintenance,

modifications- calibrations, and Limited Technical Inspections (LTI's).

- (g) Establishes the responsibilities and objectives for the records and reports system.
- (h) Defines the policies, types, and characteristics of inspections and visits.
- (i) Discusses the policy and phases of the corrective and preventive maintenance process.
- (j) Covers many maintenance management techniques and tool care responsibilities.
- (k) Provides examples on how to troubleshoot maintenance management problems.
- (1) Establishes guidelines for the preparation of Maintenance Management Standing Operating Procedures (MMSOP).

c. <u>UM 4790-5 MIMMS</u>, (AIS) Field Maintenance Procedures Manual User's Manual

- (1) This MIMMS (AIS) Users Manual sets forth detailed procedures and instructions for the supporting information subsystem at the field level (Field Maintenance Sub-System (FMSS)).
 - (2) Contents of UM 4790-5.
- (a) UM 4790-5 defines the capabilities of the FMSS to include the elements of information such as the master ERO, parts, modification control, maintenance production, readiness, maintenance engineering, and computed elements.
- (b) The publication describes the FMSS files to include the Master ERO, Activity Address (AA), Date, Master Equipment History, MI Standards, and EDIT Standard Files.
- (c) UM 4790-5 also describes the systems operation to include the FMSS data flow and system organization.
- (d) Describes the systems input, processing, and system output reports.
 - (e) The publication describes the maintenance flow.

- (f) Describes all data elements.
- (g) UM 4790-5 also displays sample input transactions and legends as they would appear on a coding sheet or MIMMS output report.
- d. TM 4700-15/1, Ground Equipment Records Procedures. This manual provides instructions for the preparation, use, and the disposition of required forms and records associated with the operation and maintenance of Marine Corps ground equipment.
- e. <u>UM 4400-124, FMF SASSY Using Unit Procedures Users Manual</u>. This manual provides the user with oriented documentation on the functional procedures of FMF SASSY using units.
- f. UM 4400-123, FMF SASSY Management Unit Procedures Users

 Manual. This manual provides user oriented documentation on
 functional procedures of SASSY for all personnel who must make
 reference to the SASSY subsystem and to serve as a guide for training
 and educating personnel, thereby reducing the impact of personnel
 turnover. UM 4400-123 is divided into two volumes.
- g. MCBul 3000, Table of Marine Corps Ground Equipment Resources Reporting (MCGERR). MCBul 3000 identifies the mission-essential principal end items and combat essential equipment items selected for equipment status reporting within the Marine Corps.
- h. MCO P3000.11, Marine Corps Ground Equipment Resources
 Reporting (MCGERR) Introduction/Policy Manual. This reference
 provides information concerning the ground equipment readiness of FMF
 and Organized Marine Corps Reserve Units.
- i. MCO P4400.82, Marine Corps Unified Materiel Management System (MUMMS) Controlled Item Management Manual. MCO P4400.82 provides information for individual item management of controlled items within the limits of MUMMS with the least administrative effort. The reference also contains detailed information pertaining to the following maintenance related programs:
 - (1) Recoverable Items Program (RIP).
 - (2) Replacement and Evacuation (R&E) Program.
 - (3) Rebuild Program.
 - (4) Secondary Depot Reparables Program.

- j. MCO P4400.150, Consumer-Level Supply Policy Manual. MCO P4400.150 provides policy about consumer-level supply, reparable issue point (RIP), materiel issue point (MIP), critical low density (CDL) floats, investigations, pre-expended bin (PEB), and the use of the TAM and T/E.
- k. (<u>Customer Assistance Hand book</u>). The hand book is a ready reference of selected data from a number of supply references. The hand book contains information pertaining to advice codes, source maintenance and recoverability codes (SMRC), status codes, abbreviations, acronyms, and so forth. This book is published by the Defense Logistics Support Command Defense Logistics Agency.

2. THE OBJECTIVES OF THE MARINE CORPS INTEGRATED MAINTENANCE MANAGEMENT SYSTEM

- a. The overall objective of MIMMS is to increase equipment readiness. This is accomplished by encouraging better use of maintenance resources (funds, personnel, repair parts, tools and equipment, facilities, time, and publications) and by giving commanders the management tools to improve maintenance in their commands.
- b. The objectives listed below will help to accomplish the overall objective of MIMMS.
- (1) Define and establish uniform management policies and procedures for ground equipment maintenance.
- (2) Improve staff planning, organization, direction, and coordination of maintenance activities.
- (3) Document maintenance requirements, accomplishments, and how maintenance resources are expended.
- (4) Provide timely update of requirements status through system interface.
- (5) Provides timely management information for prioritizing operations and identification and correction of trends, excesses, deficiencies, and waste.
 - (6) Provides readiness reporting information.
- (7) Extracts selected history for use in acquisition, budgetary, and item management decision making.

3. EQUIPMENT MAINTENANCE MANAGEMENT PROCEDURES

a. MIMMS General Procedures

- (1) Equipment maintenance management shall follow the procedures set forth in MCO P4790.1 and other directives and publications on maintenance issued by Headquarters, Marine Corps.
- (2) Repairs on equipment shall be performed at the lowest echelon/ category of maintenance as possible.
- (a) The choice of echelon/category depends on the type of repair, time factors, parts needed, and the availability of tools, equipment, and personnel.
- (b) Local conditions and the tactical situation of FMF organizations must also be considered.
- (c) Tactical conditions and temporary shortages of support equipment or personnel may preclude a unit from performing maintenance it is normally authorized to conduct and require a unit to evacuate the equipment to the next higher echelon.

b. MIMMS Specific Procedures

- (1) All organizations shall perform <u>only</u> those maintenance actions which they are <u>authorized</u> to perform. The Marine Corps T/O is the source for determining the level of maintenance authorized.
- (2) Materiel requiring repair beyond the scope or capability of one echelon shall be evacuated to the next higher echelon.
- (3) Each echelon is authorized to perform any maintenance function of lower echelons and shall do so when required by practical and tactical situations.
- (4) Lower maintenance echelons shall not perform maintenance assigned to a higher echelon. Evidence of an attempt to perform maintenance beyond a unit's capability shall be reported to the proper commander for corrective action.
- (5) Movement, protection, preservation, and general care of reparable material which is in an unserviceable condition shall be the same as that afforded serviceable material. This prevents further deterioration and minimizes the commitment of maintenance resources required to return the equipment to a serviceable condition.

- (6) The time that reparable material remains unserviceable shall be kept to a minimum since unserviceable material represents a significant investment. While reparable material is unserviceable, the owning unit is either denied its use or a like serviceable item must be provided while the unserviceable item is being repaired. Therefore, delays in performing maintenance or in evacuating unserviceable equipment will be eliminated.
- (7) Maintenance and maintenance management procedures in a garrison environment shall not differ significantly from those in deployed units.
- (8) Information recorded on maintenance actions will be limited to those required by current publications. Maintenance management information shall be automated to the maximum extent possible to reduce manual record keeping.
- (9) FMF units are not authorized to perform depot (fifth echelon) maintenance, except as specifically authorized by the Commandant of the Marine Corps (LPP).
- (10) Major subordinate command (MSC) commanders are authorized to approve temporary (six months or less) increases in a unit's authorized echelon of maintenance.
- (11) The Commanding Generals, 4th Marine Division and 4th Marine Aircraft Wing, may grant extensions to the six-month limitation normally imposed for temporary increases in the echelon of maintenance and may waive associated T/O change request requirements.
- (12) FMF commands and other commands with combat-related missions shall give subordinate units returning from combat, deployment, or extensive training operations enough time for maintenance needed to recover full combat readiness.
- (13) Supporting establishments such as Marine Corps bases, air stations, DMA's, Marine Corps districts, barracks, and other activities not

part of the operating forces, are exempt from those provisions of MCO P4790.2 which conflict with directives that specify policy, procedures, and programs for garrison mobile equipment (GME).

- (14) Maintenance by cannibalization and selective interchange.
- (a) The following definitions provide guidance/clarification concerning cannibalization and selective interchange.

- 1 Cannibalization is the removal of serviceable parts from one item of equipment to install them on another item of equipment.
- 2 Selective interchange is the exchange of selected serviceable repair parts/components from a deadlined item of equipment for unserviceable repair parts/components from a like item. The exchange must be complete to qualify as selective interchange. The exchange, however, may take the form of a requisition for the replacement item in lieu of the actual unserviceable repair part/component.
- (b) Maintenance by cannibalization or selective interchange is considered to be an exceptional procedure and is authorized only when an operational commitment is imminent, and only when it appears that the required part/component cannot be obtained on a timely basis. Maintenance by selective interchange or cannibalization must be performed on a case-by-case basis and authorized by:
 - 1 The CMC (LP).
 - 2 The major subordinate command commander.
- $\underline{3}$ The commander of any unit that is authorized by T/O to perform at least third echelon maintenance and/or be an authorized maintenance float or subfloat holder. The commander must ensure that:
- \underline{a} The equipment or secondary reparable is in the intermediate category (3d or 4th echelon) of maintenance.
- $\underline{\underline{b}}$ The commander of the unit that owns the equipment from which the serviceable part or secondary reparable is to be removed has concurred with the interchange.

4. MAINTENANCE MANAGEMENT PERSONNEL AND THEIR RESPONSIBILITIES

- a. Commanding officers are responsible for ensuring that an effective maintenance program is conducted within their command. To accomplish this, commanders will:
- (1) Make sure that the approach to equipment maintenance and its management is effective, logical, and consistent and that MIMMS is properly functioning throughout their command.

- (2) Instill in their staffs, subordinate commands, and maintenance sections the importance of the maintenance program to their overall mission.
- (3) Stress equipment maintenance inspections and daily contact between commanders, staff officers, and maintenance personnel.
- (4) Make sure that training programs are established which address MIMMS functional areas targeting operators, technicians, clerical, and supervisory personnel.
- (5) Ensure the proper selection and utilization of the Officer/SNCO they assign to assist them in managing the command's maintenance program.
- (6) Publish maintenance management SOP's for continuing programs in the following areas:
- (a) Preventive maintenance (PM) scheduling and performance.
- (b) Corrective maintenance (CM) scheduling and performance.
 - (c) Calibration control.
 - (d) Modification control.
 - (e) Publication control.

b. Responsibilities of the Maintenance Management Officer (MMO)

- (1) The MMO will supervise the equipment maintenance program within the unit or section to which he is assigned. The MMO will coordinate and integrate the effort of all maintenance activities in the unit.
- (2) Commands, to include detached or separate commands, which are authorized second echelon or higher maintenance capability for more than one commodity area will assign an officer or staff noncommissioned officer, in writing, as maintenance management officer (MMO) to provide supervision over equipment maintenance.

- (a) The MMO's responsibilities may be assigned as an additional duty for an officer or the primary duty of the SNCO when the maintenance requirements of the command do not necessitate the assignment of an officer on a full-time basis.
- (b) In units authorized second or higher echelon maintenance in only one commodity area, the individual designated as the commodity manager shall perform the maintenance management functions and need not be designated as the MMO.
- (3) The MMO must ensure the highest state of equipment readiness possible with the resources available. The MMO has the staff responsibility for the operation and function of MIMMS, and is responsible for the management and coordination of the following eight maintenance management functional areas:
- (a) Maintenance administration to include the use of maintenance resources; development of the MMSOP, desk-top procedures, and turnover folders; scheduling maintenance; inventory of equipment; identification of facilities requirements; and establishment of safety programs.
- (b) Personnel and training. The MMO will coordinate with the G-1/S-1 and G-3/S-3 respectively with personnel requirements and the training of the personnel.
- (c) Records and reports. The MMO will assist the commodity manager in the preparation of maintenance forms and records and the management of maintenance programs; and will also monitor the reports and the output to correct errors and identify possible problems.
- (d) Publications control. The MMO will coordinate with the G-1/S-1 and commodity managers to make sure that adequate quantities of publications are on hand, publication internal distribution control procedures are established, publications are upto-date, and the proper form is completed to notify the appropriate personnel of discrepancies in publications.
- (e) Equipment availability. The MMO will advise the commanding officer on equipment readiness and make sure that procedures are established for employment of the maintenance cycle time program.
- (f) Preventive maintenance checks and services (PMCS) and corrective maintenance (CM). The MMO will coordinate with the commodity managers and maintenance officers to make sure that:

- 1 Proper follow-up procedures are established for correcting discrepancies noted during the performance of PMCS.
 - 2 Maintenance production procedures are established.
- $\underline{3}$ Effective reconciliation with respective supporting maintenance activities is accomplished.
 - 4 Quality control procedures are established.
- 5 The unit's Product Quality Deficiency Report (PQDR) program is centrally controlled unless this function has been delegated to the unit's quality assurance section.
- (g) Supply support. The MMO will coordinate with the supply officer to ensure that the unit has an established policy for the support of new equipment. The MMO will also assist the supply officer in the following:
- $\underline{1}$ Matters relative to support maintenance and repair parts.
- $\underline{2}$ Budget preparation by identifying maintenance and repair part funding requirements and executing the approved budget.
- (h) Maintenance related programs. The MMO along with the commodity managers and maintenance officers will coordinate the unit's participation in the following maintenance related programs.
- $\underline{1}$ Administrative storage and administrative deadline programs.
- $\underline{2}$ Contact team/limited technical inspection maintenance support.
 - 3 Maintenance standdown.
 - 4 Joint Oil Analysis Program (JOAP).
 - 5 Replacement and Evacuation (R&E) Program.
 - 6 Inspect and Repair Only as Necessary (IROAN).
 - 7 Corrosion and Wear Control (CWC) Program.

- c. The offices designated as FSMAO are direct representatives of CMC. These offices are charged with the duty of analyzing supply and maintenance management data during scheduled visits to supply and maintenance activities within their assigned geographical areas. In addition to the scheduled visit, FSMAO teams when available, will be dispatched by the OIC of FASMO to the supply and maintenance activities requesting assistance and guidance.
- (1) It should be noted, however, under no circumstances will assistance visits be provided within 180 days of a scheduled analysis.
- (2) Field activity requests for unscheduled assistance visits will be submitted to the cognizant FSMAO OIC via the chain of command, by the resquesting activity or unit, with a copy to the CMC (LPP-1).
- (3) The mission of FSMAO Program is to identify and assist in resolving problem areas in supply and maintenance management, and to recommend such actions as may be necessary for improvements to the administrative and accounting procedures inherent in the logistical operations of the organization being reviewed.
- (4) To accomplish the mission, a comprehensive analysis of all matters pertaing to Marine Corps supply and maintenance programs is required by the representives of FSMAO. Departures from the Marine Corps supply maintenance management directives, technical publications and procedure, and other matters of significant nature which bear upon the efficient and effective management of supply or maintenance will be reported to the appropriate authorities as identified in the manual.
- (a) Formal reports will be submitted via the chain of command of the organization being analyzed. When the examination of the data reveals a degraded logistics posture within the organization being analyzed, the Officer in Charge (OIC) of the FSMAO may recommend additional assistance.
- (b) The extent of this assistance will be determined through liaison between the OIC of FSMAO and the cognzant organizational commander, and may be provided in the form of correspondence or on site assistance by representatives of the FSMAO.
- (c) When the situation warrants additional analysis/
 assistance, the CMC (LPP/Inspector general of the Marine Corps (IGMC)
 may direct the OIC of FSMAO to provide such service.

- (5) Training programs for FMF supply, maintenance and maintenance management officers/chiefs are encourged. These training programs should be geared to train junior officers/(staff noncommissioned officers (SNCO), and stress management techniques and cover the full spectrum of FMF supply, maintenance and maintenance management procedures.
- d. The responsibilities of the maintenance officer/commodity manager are as follows:
- (1) Serves as the technical adviser to the commander on all commodity maintenance functions.
- (2) Supervises the maintenance/commodity operations for the unit.
- (3) Plans maintenance workload based on the maintenance level authorized, priority, availability of parts, tools, equipment, level of personnel experience, and tactical situation.
- (4) Schedules, directs, and supervises the care, inspection, and maintenance of the unit's equipment.
- (5) Inspects equipment periodically and assures that the required records are maintained properly, and that performed maintenance conforms to established standards.
- (6) Maintains staff responsibility for the operation and functioning of the MIMMS within the respective area of responsibility.
- (7) Plans and coordinates a program of resources management, to include:
- (a) The training and utilization of maintenance personnel.
 - (b) Availability of tools and support equipment.
- (c) Availability and use of technical information and maintenance facilities.
 - (d) Maintenance funding and contract maintenance.
 - (e) Use of repair parts.

- (f) Accurate submission of equipment and resource information.
- (8) Coordinates effective repair parts support with the unit's supply officer.
- (9) Analyzes maintenance information to evaluate equipment performance and maintenance production.
- (10) Acts as liaison with internal and external agencies on maintenance matters and coordinates efforts in the maintenance related programs.
- (11) Establishes maintenance production and quality control programs.
- (12) Maintains staff responsibility for the operation and functioning of the unit's calibration, preventive and corrective maintenance, modification, and publications control programs.

5. <u>RELATIONSHIP BETWEEN MIMMS AND THE AUTOMATED INFORMATION SYSTEM</u> (AIS)

- a. MIMMS AIS provides essential maintenance management information in an efficient and timely manner. Automation is used to the maximum practicable extent to record, process, store, and produce required data. This is accomplished as accurately and rapidly as possible with minimal use of equipment resources and personnel.
- b. <u>System Features</u>. MIMMS AIS incorporates maintenance data generated from both manual and automated sources. It is used at all levels of command throughout the Marine Corps.
- (1) MIMMS AIS is an integrated system, and it provides for uniform and centralized maintenance management information at each command level.
- (2) Though it interfaces with existing Marine Corps systems and programs, it does not duplicate them.
- (3) MIMMS AIS allows for timely input, storage, and retrieval of maintenance information.
- (4) A key feature of the system is the ability to provide the information needed to support maintenance engineering, production, and resources management.

- c. <u>System Input</u>. Input documentation provides for input at the information source and requires minimal effort by the originator in both its preparation and input into the system. Definitions for required code entries and procedures for input transactions are provided in UM 4790-5.
- d. <u>System Output</u>. Reports generated by the MIMMS AIS are in a format conducive to easy reading and contain only that information required for maintenance decisions and actions at the appropriate command level.
- e. <u>Capabilities</u>. The system provides for the reporting of active maintenance and repair parts information, production of selected SASSY and MIMMS Readiness Reporting System transactions, collection of historical costs, and maintenance engineering and modification control information. The capabilities of the system are as follows:
- (1) The recording of original data at the working level from the primary source documents, such as the Equipment Repair Order (ERO), and Equipment Repair Order Shopping List (EROSL).
- (2) The timely delivery and processing of maintenance and supply information.
- (3) The automatic preparation of scheduled reports to be used by maintenance managers at the shop, command, and staff levels.
- (4) The storage of job costs, application of repair parts, modification control, and maintenance information to permit the extraction in any form at any frequency desired.
- (5) To provide input to the Readiness Reporting System as well as selected SASSY input transactions.
- (6) To provide maintenance engineering and modification status input to higher headquarters.